

**GS Biotech**

# CO<sub>2</sub> Incubators

Design & Manufacture



# What do we do?

Scottish based GS Biotech, design and manufacture a range of CO<sub>2</sub> Cell Culture Incubators. The range is initially comprised of:- 14, 48, and 170 litre chamber capacities.

All models are close descendants of the first six-sided, direct heat incubator. GS Biotech has built on this lineage with smart blending of older and newer technologies to build reliability, performance and choice into the range - at a fair price.

**The range is designed around a scalable architecture and offers the following features as standard:-**

- Optimum chamber environment, profiled heating creates gentle circulation – no fan or HEPA filter.
- Seamless chamber, with rounded interior corners makes cleaning easy.
- Removable shelves are non-tip.
- Sealed inner glass door allows chamber viewing.
- CO<sub>2</sub> range programmable from 0.2 to 20 %.

- Temperature range programmable from 4 °C above ambient to 50 °C.
- Infrared CO<sub>2</sub> v vSensor, with auto self-referencing function.
- Large, easy to read LCD display with LED backlight.
- Removable, seamless, stainless steel humidity reservoir.
- 25mm access port for cable pass-through etc.
- HEPA filtration for all incoming gasses.
- Large range of options allows you to configure each incubator for each task.
- Optional data capture and reporting for QA and verification purposes.
- 3 Year Warranty (extendable).

## Control System Safety Features Include:

- Independent over temperature cut-out.
- Calibration and programmed data internally backed up to guard against loss.

## 170L Model Options

### High Temperature Decontamination Cycle

This option takes the internal temperature to 120°C and maintains this temperature for 4hrs before natural cooling to allow normal function.

### 4-Inner Door Option

4 Inner doors allow chamber conditions to be more readily maintained when frequent entry is required to the chamber.

### Oxygen Control

2 Oxygen control options are available: 1-19% & 0.1-19%

Both control systems consist of nitrogen injection to accurately control the desired below ambient Oxygen level.



### Humidity Tray Warning

An optical level sensor is an option that monitors humidity tray water level, this consists of an audible alarm. The detection level provides in excess of 2 days normal operation loss so as to accommodate long weekend periods of non attendance.



For technical specifications on our 170L Gold incubators please turn to the back of this brochure.

\*Images of incubators are not to scale.

# 48L Model Options



For technical specifications on our 48L Gold incubators please turn to the back of this brochure.  
\*Images of incubators are not to scale.

## High Temperature Decontamination Cycle

This option takes the internal temperature to 120°C and maintains this temperature for 4hrs before natural cooling to allow normal function.

## 2-Inner Door Option

2 Inner doors allow chamber conditions to be more readily maintained when frequent entry is required to the chamber.

## Oxygen Control

2 Oxygen control options are available: 1-19% & 0.1-19%

Both control systems consist of nitrogen injection to accurately control the desired below ambient Oxygen level.

## Humidity Tray Warning

An optical level sensor is an option that monitors humidity tray water level, this consists of an audible alarm. The detection level provides in excess of 2 days normal operation loss so as to accommodate long weekend periods of non attendance.

# 14L Model Options



## Oxygen Control

An Oxygen control option is available: 1-19%

This control system consists of nitrogen injection to accurately control the desired below ambient Oxygen level.

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# Features & Options for 170L, 48L & 14L

Features & Options	170L Gold	48L Gold	14L Gold
Seamless Chamber with Fully Rounded Corners	●	●	●
Dry Walled Chamber with No Condensate Spot	●	●	●
Infrared Hermetically Sealed Co2 Sensor	●	●	●
CO <sub>2</sub> Auto Reference System	●	●	●
Sealed Inner Glass Door	●	●	●
Large LCD Display with Led Backlight	●	●	●
25mm Access Port with Sealing Plugs	●	●	●
RS232 Output Socket	●	●	●
On Board Datalogger	●	●	●
O <sub>2</sub> Control (1-19%)	○	○	○
O <sub>2</sub> Control (1-19%) or (0.1-19%)	○	○	N/A
High Temperature Decontamination	○	○	N/A
Humidity Tray Warning	○	○	N/A
4 Inner Door Option	○	N/A	N/A
2 Inner Door Option	N/A	○	N/A

Option Codes	170L Gold	48L Gold	14L Gold
230V 50/60Hz	170G-230	048G-230	014G-230
110V 50/60Hz	170G-110	048G-110	014G-110
O <sub>2</sub> Control 1-19%	170G-011	048G-011	014G-011
O <sub>2</sub> Control 0.1-19%	170G-031	048G-031	N/A
High Temperature Decontamination	170G-014	048G-014	N/A
Humidity Tray Warning	170G-018	048G-018	N/A
4 Inner Door Option	170G-022	N/A	N/A
2 Inner Door Option	N/A	048G-022	N/A

## 170L, 48L & 14L Technical Specifications

Temperature Management	170L Gold	48L Gold	14L Gold
Range:	4°C above ambient to 50°C	4°C above ambient to 50°C	4°C above ambient to 50°C
Control:	± 0.1°C	± 0.1°C	± 0.1°C
Stability:	± 0.1°C	± 0.1°C	± 0.1°C
Uniformity:	± 0.3°C	± 0.3°C	± 0.3°C

CO <sub>2</sub> Control	170L Gold	48L Gold	14L Gold
Range:	0.2% - 20%	0.2% - 20%	0.2% - 20%
Control:	± 0.1%	± 0.1%	± 0.1%
Stability:	± 0.1%	± 0.1%	± 0.1%
Uniformity:	± 0.2%	± 0.2%	± 0.2%
Recovery Rate:	> 0.7% per minute	> 0.7% per minute	> 1.5% per minute
Connection:	6mm tubing	6mm tubing	6mm tubing
Gas Pressure:	0.35 BAR (5PSI)	0.35 BAR (5PSI)	0.35 BAR (5PSI)

Relative Humidity	170L Gold	48L Gold	14L Gold
Tray Capacity:	2.0 Litres	0.8 Litres	0.3 Litres
Humidity:	Up to 95% @ 37°C	Up to 95% @ 37°C	Up to 95% @ 37°C

Shelves	170L Gold	48L Gold	14L Gold
Solid Shelves:	4 Shelves	3 Shelves	2 Shelves
Dimensions:	518(W) x 475(D)mm	378(W) x 281(D)mm	215(W) x 192(D)mm

Dimensions	170L Gold	48L Gold	14L Gold
Chamber:	540(W) x 480(D) x 633(H)mm	400(W) x 301(D) x 400(H)mm	238(W) x 201(D) x 298(H)mm
External:	669(W) x 623(D) x 822(H)	529(W) x 442(D) x 589(H)	336(W) x 322(D) x 481(H)mm
Crated:	794(W) x 806(D) x 1057(H)mm	654(W) x 617(D) x 824(H)mm	461(W) x 497(D) x 716(H)mm
Unit Weight:	75kg	38kg	22kg
Crated Weight:	100kg	60kg	38kg

Electrical Supply	170L Gold	48L Gold	14L Gold
Voltage:	100/120V 50/60Hz 220/240V 50/60Hz	100/120V 50/60Hz 220/240V 50/60Hz	100/120V 50/60Hz 220/240V 50/60Hz
Power:	500W (STD) 1000W (HT)	500W (STD) 1000W (HT)	700W
Hold Energy:	< 0.1kWh @ 37°C	< 0.1kWh @ 37°C	< 0.1kWh @ 37°C

### Features & Options Key:

- Standard Feature: ●
- Available Option: ○





# WolfLabs

**Pricing on any accessories shown can be found by keying the part number into the search box on our website.**

The specifications listed in this brochure are subject to change by the manufacturer and therefore cannot be guaranteed to be correct. If there are aspects of the specification that must be guaranteed, please provide these to our sales team so that details can be confirmed.

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Please contact us if this literature doesn't answer all your questions.